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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/728,342

12/03/2003

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88265-7072

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29157 7590 01/07/2008  
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EXAMINER

CORBIN, ARTHUR L

ART UNIT

PAPER NUMBER

1794

NOTIFICATION DATE

DELIVERY MODE

01/07/2008

ELECTRONIC

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* ALFRED YOAKIM and PETR MASEK

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Appeal 2008-0164  
Application 10/728,342  
Technology Center 1700

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Decided: January 3, 2008

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Before CATHERINE Q. TIMM, LINDA M. GAUDETTE, and  
MICHAEL P. COLAIANNI, *Administrative Patent Judges*.

COLAIANNI, *Administrative Patent Judge*.

DECISION ON APPEAL

1 Appellants appeal under 35 U.S.C. § 134 the final rejection of claims 1, 2, 4, 5, 10-12, 14-16, 19, and 20. We have jurisdiction over the appeal pursuant to 35 U.S.C. § 6(b).

We AFFIRM.

INTRODUCTION

Appellants disclose a sealed cartridge, designed to be extracted under pressure, containing a beverage substance (Specification 1). The cartridge may be used to produce coffee having a good quality foam thereon (Specification 1).

Claim 1 is illustrative:

1. A sealed cartridge comprising first and second sheet materials joined to form a space there between, and a beverage-forming substance for preparing a beverage located in the space between the sheets, with the first material designed to admit water into the cartridge for extraction of the beverage from the beverage-forming substance, and the second material having properties to retain the water or beverage in the cartridge until an overpressure of between 0.1 to 3 bar is achieved, at which overpressure the second material will allow the extracted beverage to exit the cartridge, wherein the first sheet material is selected from the group consisting of paper, a non-woven fiber, prescored plastic material and combinations thereof and wherein the second sheet is selected from the group consisting of filter paper, non-woven fiber material, prescored plastic material and combinations thereof having a sufficiently tight mesh to retain water or beverage in the cartridge until the overpressure is reached and allows the beverage to pass through it by effect of the fluid overpressure alone when the overpressure of between 0.1 to 3 bar is reached, thus resulting in a delay effect in the passage of the beverage through the second sheet after water has been admitted into the capsule.

The Examiner relies on the following prior art references as evidence of unpatentability:

Favre	US 4,136,202	Jan. 23, 1979
Illy	US 4,253,385	Mar. 3, 1981
Fond	US 5,897,899	Apr. 27, 1999

The rejections as presented by the Examiner are as follows:

1. Claims 1, 2, 4, 5, 11, 12, 14-16, 19, and 20 are rejected under 35 U.S.C. § 112, second paragraph, as failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
2. Claims 1, 2, 4, 5, 11, 12, 14, 16, 19, and 20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Fond in view of Favre.

3. Claims 10 and 15 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Fond in view of Favre and Illy.

Appellants only argue claim 1. Accordingly, we decide the first two grounds of rejection on the basis of claim 1. We decide the third ground of rejection on the basis of dependent claims 10 and 15.

## OPINION

### 35 U.S.C. § 112, SECOND PARAGRAPH, REJECTION

The Examiner finds that claim 1 recites “the capsule,” which lacks antecedent basis and thus fails to comply with the requirement of § 112, second paragraph, to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Appellants do not contest the § 112, second paragraph, rejection (Br. 12). Rather, Appellants indicate that they will amend the claim to change “capsule” to “cartridge” to correct the error (Br. 12).

Accordingly, we summarily sustain the Examiner’s § 112, second paragraph, rejection of claims 1, 2, 4, 5, 11, 12, 14-16, 19, and 20 as failing to comply with the requirement to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

### 35 U.S.C. § 103 REJECTION OVER FOND IN VIEW OF FAVRE

The Examiner finds that Fond discloses all the features recited in claim 1 except for the need for score lines in the cartridge (i.e., the score lines in the claimed prescored plastic film) (Ans. 3-4). The Examiner finds that Fond does not suggest that the inclusion of score lines in the tear face

would interfere with the functioning of the cartridge (Ans. 4). The Examiner finds that Favre shows that using score lines is notoriously well known in the art (Ans. 4). The Examiner concludes that it would have been obvious to include score lines in the cartridge of Fond in order to reduce the overpressure required to break the tear face (Ans. 4).

Appellants argue that Fond does not disclose the following claim feature:

. . . wherein the second sheet is selected from the group consisting of filter paper, non-woven fiber material, prescored plastic material and combinations thereof having a sufficiently tight mesh to retain water or beverage in the cartridge until the overpressure is reached and allows the beverage to pass through it by effect of the fluid overpressure alone when the overpressure of between 0.1 to 3 bar is reached . . .

(Br. 12-13).

Appellants contend that Fond fails to disclose or suggest that the second material is filter paper, non-woven fiber and/or a prescored plastic material (Br. 13). Appellants contend that Fond's tear face (i.e., second sheet) requires high pressure and relief surface element members 13 to aid in rupturing the tear face, whereas Appellants' claimed second sheet allows the beverage to pass by fluid overpressure alone when the overpressure is between 0.1 to 3 bar (Br. 12-13). Appellants argue that Fond's use of paper fibers in a tear face made of paper fiber and aluminum is directed to a support or filtering function of the paper fibers, not a delayed opening function as claimed (Br. 14). Appellants contend that Favre does not cure the deficiencies of Fond, and both Fond and Favre teach away from using the claimed lower overpressure in favor of higher pressures (Br. 14).

We have considered all of Appellants' arguments and are not persuaded for the reasons below.

We begin by construing Appellants' claim 1 and, specifically, the argued second sheet claim feature. Claim 1 is a product claim directed to a sealed cartridge (claim 1). The argued second sheet claim feature noted above contains both structural and functional limitations. Structurally, the claim requires that the second sheet be made of a mesh material of one of filter paper, non-woven fiber material, prescored plastic material or combinations thereof (claim 1). Functionally, the claim requires the mesh be "a sufficiently tight mesh to retain water or beverage in the cartridge until the overpressure is reached and allows the beverage to pass through it by effect of the fluid overpressure alone when the overpressure of between 0.1 to 3 bar is reached" (claim 1). The expression "sufficiently tight mesh" is, according to the Specification, "understood to mean a low air or water permeability." (Specification 3:28-29).

Patentability of a product is based on the product itself. *In re Thorpe*, 777 F.2d 695, 697 (Fed. Cir. 1985). A functional feature of a claim is limiting only in so far that it further limits the structure of the product.

We first must determine whether Fond disclose the structural features of Appellants' second sheet.

Fond discloses that the tear face (i.e., second sheet) should have the characteristic of a foil and may be made of aluminum or plastic film (Fond, col. 5, ll. 49-54). Composite materials including such combinations as metal/plastic, metal/plastic/paper or plastic/plastic for the tear face are also acceptable (Fond, col. 5, ll. 54-59). Fond discloses that marks for weakening (i.e., score lines) are not precluded from use in a wall face (i.e.,

tear face) of the cartridge (Fond, col. 3, ll. 1-6). Fond further discloses that the pressure utilized with the cartridge is from above 1 to about 20 bar (Fond, col. 4, ll. 15-17) and that the tear face should withstand a pressure above 1 bar, particularly with the range of 2 to 15 bar (Fond, col. 5, ll. 38-45). Fond discloses that the maximum pressure is not necessarily reached during the opening of the cartridge and may be reached after opening during extraction (Fond, col. 4, ll. 40-42).

Favre discloses using lines of weakness (e.g., score lines) to provide preferential areas for breaking a membrane (i.e., tear face) in a cartridge (Favre, col. 2, ll. 20-25).

Fond clearly discloses the structural features of the argued claim feature. Specifically, Fond discloses that a plastic film may be used to form the tear face and that lines of weakening (e.g., score lines) may be used in the wall face (i.e., tear face). Appellants do not contest the “mesh” claim feature with regard to Fond’s plastic film with weakened areas (e.g., score lines).

Based upon Fond’s and Favre’s disclosures, combining Favre’s lines of weakness (e.g., score lines) for breaking a membrane (i.e., tear face) in a capsule for beverage preparation with Fond’s tear face in a cartridge for beverage preparation is merely the predictable use of prior art elements (i.e., lines of weakening) according to their established function (i.e., weakening the membrane so that the membrane breaks along the lines of weakening). *KSR Int’l Co. v. Teleflex Inc.*, 127 S. Ct 1727, 1740 (2007).

Moreover, contrary to Appellants’ teaching away argument, we are in agreement with the Examiner that Fond’s disclosure of a range of suitable pressures (i.e., 2-15 bar) that overlaps Appellants’ claimed range of 0.1 to 3

bar and teaching that the tear face withstands a pressure above 1 bar suggest that the tear face may open due to overpressure at 2 bar, for example (Ans. 6-7). In other words, the Examiner provided factual findings from Fond's disclosure that support a determination that it was within the capabilities of those of ordinary skill in the art to construct a cartridge capable of rupturing at overpressures within the claimed range. Appellants have not rebutted these findings.

Furthermore, since Fond discloses the claimed structural features, the burden shifted to Appellants to demonstrate that Fond's structure (i.e., plastic film with weakened areas (e.g., score lines)) is not capable of performing the functions recited in the claim. *In re Best*, 562 F.2d 1252, 1254-55 (CCPA 1977).

Appellants have not proffered any evidence to establish that Fond's structure (i.e., the plastic film with weakened areas (e.g., score lines)) is not capable of performing the claimed functions. Rather, Appellants only argue that, unlike Appellants' cartridge that ruptures under fluid pressure alone, Fond's cartridge requires high pressures and relief surface elements 13 to rupture the tear face (Br. 14), without providing evidence that Fond's plastic film with weakened areas would not be capable of performing the claimed functions.

Appellants argue that Fond's disclosure to form a composite of paper fibers and aluminum in the tear face indicates that Fond uses the paper fibers for a different function than Appellants' function (Br. 14). Appellants refer to Fond's disclosure that paper fibers form a network at the tears which is favorable in keeping the face integrally intact (Br. 14) to support their differing function argument. However, Appellants have not provided



evidence that Fond's composite tear face, which may include prescored plastic film and paper fibers, would not be capable of performing the claimed function (i.e., the retarded or delayed opening function indicated by Appellants in their Brief (Br. 14)) as required. *Best*, 562 F.2d at 1254-55.

Moreover, Appellants differing function argument regarding Fond's use of paper fibers does not establish that Fond's product having substantially identical features as claimed would not be capable of performing the claimed function of delayed opening. It is Appellants' burden to provide evidence establishing the prior art structure is incapable of performing the claimed functions. *Id.* Appellants have not carried their burden. *Id.*

Regarding Appellants' arguments directed at Favre's disclosures, we find that the claim features Appellants argue Favre does not disclose are taught by Fond, the primary reference. Regarding Favre's pressure disclosure (i.e., "the pressure may be relatively high and may attain about 16 bar"), we do not find that such disclosure constitutes a teaching away. Rather, in view of Fond's overlapping pressure range and Favre's disclosure that the pressure "may be" relatively high, we understand Favre to indicate that the pressure may also be low, such as disclosed by Fond (i.e., 1 bar to 20 bar) (Fond, col. 5, ll. 38-45). All of the disclosures in a reference must be evaluated for what they fairly teach one of ordinary skill in the art. *In re Boe*, 355 F.2d 961, 965 (CCPA 1966).

For the above reasons, we sustain the Examiner's § 103 rejection of claims 1, 2, 4, 5, 11, 12, 14, 16, 19, and 20 over Fond in view of Favre.

35 U.S.C. § 103 REJECTION OVER FOND IN VIEW OF FAVRE AND  
ILLY

Appellants do not separately argue the § 103 rejection of dependent claims 10 and 15 over Fond in view of Favre and Illy. Rather, Appellants contend that the rejection is improper for the reasons provided with respect to independent claim 1, upon which claim 10 depends and claim 15 ultimately depends. However, we are unpersuaded by Appellants' arguments regarding independent claim 1 for the reasons above. Accordingly, we sustain the Examiner's § 103 rejection of claims 10 and 15 over Fond in view of Favre and Illy.

DECISION

We sustain the Examiner's § 112, second paragraph, rejection of claims 1, 2, 4, 5, 11, 12, 14-16, 19, and 20 as failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

We sustain the Examiner's § 103(a) rejection of claims 1, 2, 4, 5, 11, 12, 14, 16, 19, and 20 over Fond in view of Favre.

We sustain the Examiner's § 103(a) rejection of claims 10 and 15 over Fond in view of Favre and Illy.

The Examiner's decision is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

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Appeal 2008-0164  
Application 10/728,342

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